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ABSTRACT

This guide consists of materials for use in developing a vocational agriculture curriculum. Addressed in the individual sections of the guide are the following topics: reviewing program objectives for vocational agriculture; reviewing program coding and taxonomy areas; reviewing community needs with school and advisory committees and recommending taxonomy areas; developing a course sequence; developing course outlines, student outlines, learning activities, and evaluation instruments in relation to school goals; planning a vocational agriculture budget; designing a lesson plan to fit the course outline; and developing a course outline for each of 14 vocational agriculture subject areas. Various sample forms and questionnaires are provided, including a list of teaching assignment codes, a sample area job analysis, a core curriculum occupational readiness record, a needs assessment rating scale, a student evaluation scale, a sample course outline form, a financial records form, a sample lesson plan, and lists of suggested units of instruction for various vocational agriculture curriculum areas. (MN)

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STEPS TO DEVELOPING A CURRICULUM FOR VOCATIONAL AGRICULTURE

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STEPS TO DEVELOPING A CURRICULUM FOR VOCATIONAL AGRICULTURE

STEP NO. 1	Review Program Objectives for Vocational Agriculture
STEP NO. 2	Review Program Coding/Taxonomy Areas
STEP NO. 3	Review with School and Advisory Committees Community needs and recommend Taxonomy Areas.
STEP NO. 4	Develop a Course Sequence
STEP NO. 5	Develop Course Outline, Student Outline, Learning Activities, and Evaluation in Relation to School Goals
STEP NO. 6	Develop Vocational Agriculture Budget
STEP NO. 7	Develop Lesson Design to Fit Course Outline
STEP NO. 8	Develop a Course Outline

STEP 1

Review

Program

Objectives

PROGRAM OBJECTIVES FOR VOCATIONAL AGRICULTURE

Vocational agriculture is designed to provide entry-level knowledge and skills for those students who are planning a career in production agriculture or related occupations. The instructional program includes one or more courses in animal science, plant science, soil science, agricultural mechanics, forestry, horticulture and natural resources management.

The instructional program in vocational agriculture is based on the needs and interests of individuals and groups served. It is developed in view of actual or anticipated opportunities for employment in agricultural or related occupations. The program is also designed to contribute to the broad educational objectives of the public school system.

The objectives of Vocational Agriculture are:

1. To develop agricultural competencies needed by individuals who live on a farm or who plan to engage in production agriculture.
2. To develop competencies in the agricultural sciences which are needed by individuals who plan to engage in agricultural-related work other than production agriculture.
3. To develop knowledge, skills and abilities in the area of agriculture mechanics.
4. To develop a good foundation for and a desire to continue education beyond the high school.
5. To assist with the vocational guidance of high school youths.
6. To develop those abilities in human relations which are essential in agricultural occupations.
7. To complement the broad educational objectives of the secondary school by illustrating practical applications of academic subjects such as science, mathematics and economics upon agriculture for the student.

STEP 2

CODING

TAXONOMY

VOCATIONAL TEACHING ASSIGNMENT CODES

(For use with F-218, and when applying for new class approval)

Classes on these pages may be approved for State Vocational Enrollment Support classification of instruction programs (CIP) code numbers and titles. When listing the assignment codes, enter only those for which vocational approval has been granted or for which approval has been requested. USOE codes have been discontinued commencing with the 1982-83 school year and thereafter.

AGRICULTURE EDUCATION

010101	Agriculture Business & Management, General
010104	Farm & Ranch Management
010199	Agriculture Business and Management, Other
010201	Agriculture Mechanics, General (Basic)
010202	Agriculture Electrification, Power, & Controls
010203	Agriculture Mechanics, Construction & Maintenance Skills (Advanced)
010204	Agriculture Power Machinery
010205	Agricultural Structures, Equipment & Facilities
010206	Soil & Water Mechanical Practices
010297	Agriculture Welding
010298	Agriculture Power, Small Gas Engines
010299	Agricultural Mechanics, Other
010301	Agricultural Science I - First Year
010302	Animal Production
010304	Crop Production
010306	Agricultural Science II - Second Year
010307	Agricultural Science III - Third Year
010308	Agricultural Science IV - Fourth Year
010310	Fruit & Vegetable Production
010399	Agricultural Production, Other
010401	Agricultural Products & Processing, General
010501	Agricultural Services & Supplies, General
010601	Ornamental Horticulture, Basic
010603	Floriculture
010604	Greenhouse Operation and Management
010605	Landscaping
010606	Nursery Operation & Management
010607	Turf Management
010690	Ornamental Horticulture, Advanced
010699	Horticulture, Other
019992	Agribusiness & Agricultural Production, Coop
020402	Agronomy

AGRICULTURE EDUCATION (Continued)

020501	Soils Sciences, General
030101	Renewable Natural Resources, General
030301	Fishing & Fisheries, General
030401	Forest Production & Management, General
030405	Logging
030601	Wildlife Management

BUSINESS AND OFFICE EDUCATION

070103	Bookkeeping, 1st Year
070104	Electronic Math Application
070113	Bookkeeping, 2nd Year
070190	Recordkeeping
070301	Business Data Processing
070390	Keyboarding
070608	Word Processing
070617	Shorthand, 1st Year
070627	Shorthand, 2nd Year
070690	Business Communication
070693	Business Law
070710	Advanced Typing
079990	Office Applications
079991	Coop - class
079992	Coop - work

MARKETING AND DISTRIBUTIVE EDUCATION

080102	Fashion Merchandising
080699	Food Marketing (Acura-Touch Cashier Checker)
080790	Introduction to Marketing (DE)
080791	Distributive Education - Cooperative Program
080792	Distributive Education - Coordinated Job Training
080793	Distributive Education - Senior Seminar
081701	Real Estate Sales

HEALTH OCCUPATIONS EDUCATION

170101	Dental Assisting
170305	Clinical Laboratory Assisting
170502	Central Supply Technology
170503	Medical Assisting
170508	Physician Assisting
170602	Nursing Assisting
170605	Practical Nursing
170692	Nurses Aide Coop.
179999	Allied Health, Other

STEP 3

1. Community Needs
2. Taxonomy Areas
3. Advisory Committees

STEP 3 - IDENTIFYING COMMUNITY NEEDS, ADVISORY COMMITTEES, AND TAXONOMY AREAS

The purpose of this section is to assist in reviewing, developing or adjusting your vocational agriculture program to better meet the needs of students seeking employment in the field of agriculture.

The following is a step by step approach to utilize your local advisory committee in developing a vocational agriculture program:

- Work with your advisory committee to make important decisions found in Step 3.
- Through the help of the advisory committee you must be able to establish a need for the program. State surveys, census data, data from labor unions, and local surveys such as the one found on page 9 (nine) of this workbook can help you make this decision.
- Review with the advisory committee possible taxonomy areas that are found in a vocational agriculture program and match these with agriculture manpower needs that have been established with your surveys.
- Finally, you and the advisory committee can make a decision on which taxonomy areas the vocational program should offer.
- Identify the competencies recommended for each taxonomy area (Note pages 13, 14, 15, 16, 17, 18).
- The vocational agriculture instructor can then build a sequential course outline to be reviewed by the advisory committee (Note Step 4).

AREA JOB ANALYSIS

EMPLOYMENT AREA	TOT. NO. EMPLOYED	TURN OVER	YEARLY NEEDS	NO. EMP. FROM H.S.
FLORIST	252	90	5[illegible]	23
GARDEN EQUIPMENT	535	121	74	43
NURSERY	128	135	113	30
LANDSCAPING	149	34	24	8
GREENHOUSE WORKER	76	45	31	25
SPRAY APPLICATOR	82	40	17	5
TURF-LAWN (PUBLIC)	158	30	24	20
YARD MAINTENANCE	?	?	?	?
AGRIC. MACHINERY	523	116	28	22
AGRIC. PROCESSING	306	204	66	66
SMALL ANIMAL CARE	129	106	42	34
CHEMICAL FERT.	276	41	20	5
SALESMAN	54	7	2	0

TRAINING PROGRAMS TO MEET JOB MARKET

AGRICULTURE EDUCATION PROGRAM PLANNING GUIDE

No.	Taxonomy	Related Subjects	Jobs	Advisory Rating 4 3 2 1 0 **
1.0300	Agriculture Production	Animal Science	Farmer	
		Plant Science	Farm Manager Farm Worker	
		Agriculture Mechanics	Herdsman	
		Farm/Ag. Business Management	Feed Salesperson	
		SOE	Fertilizer Sales	
		Student Leadership	Supplies Manager	
			Serviceman	
			Products Buyer	
1.0500	Agriculture Sales/ Service	Agriculture Chemicals	Feed Salesperson	
		Feeds - Seeds	Seed/Supply Salesperson	
		Fertilizers	Supply Manager	
		Agriculture Business Management	Serviceman	
		Agriculture Mechanics	Fertilizer Sales	
		SOE	Partsman	
		Student Leadership	Equipment Salesperson	
		Agriculture Sales		
		Exporting		

** Rating System:
4 = Essential
3 = Important
2 = Of Some Importance
1 = Not Important
0 = Does Not Apply

No.	Taxonomy	Related Subjects	Jobs	Advisory Rating				
				4	3	2	1	0
1.0200	*Agriculture Mechanics	Agriculture Power and Machinery	Agriculture Machinery Repairman					
	*As part of other Taxonomy's or Separtate Program	Agriculutre Structures and Conveniences	Construction Agric. Buildings					
		Soil Management	Equipment Serviceperson					
		Water Management	Agriculture Serviceperson					
		Agriculture Construction and Maintenance	Agriculture Partsperson					
		Agriculture Electrification	Agriculture Equipment Operator					
		SOE	or					
		Student Leadership	As Relates to Other Prop. Areas					
		Agribusiness						
01.0600	Ornamental Horticulture	Arboriculture	Florist					
		Floriculture	Garden Center Manager					
		Greenhouse	Garden Center Salesperson					
		Landscaping	Greenhouse Manager, Employee					
		Nursery Operation	Golf Course Employee					
		Turf Manangement	Landscape Gardener					
		SOE	Landscape Architect					
		Student Leadership	Landscape Maintenance					
		Agribusiness	Nursery Worker					
		Agriculture Mechanics	Turf Grass Manager					

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No.	Taxonomy	Related Subjects	Jobs	Advisory Rating 4 3 2 1 0
03.0100	Agriculture Resources	Forests	Christmas Tree Grower	
03.0400	Forestry	Recreation	Forest Produces Sales-person	
		Soil	Forester	
		Wildlife	Forester Aid	
		Air, H_2O	Forestry Technician	
		Fish	Park Employee	
		Forest Protection	Pollution Control	
		Logging	Department of Ecology	
		Special Products	Logger	
		SOE	Aguaculture	
		Forest Business	Forest Mechanic	
		Student Leadership	Sawmill	
		Forest Mechanics		
01.9992	Occupational Cooperative Program	Applications & Forms	All Jobs Listed Above	
		Interview		
		Work Habits		
		Careers and Future		
		SOE		
		Student Leadership		
		Agribusiness		

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CORE CURRICULUM

OCCUPATIONAL READINESS RECORD

DIRECTIONS: Evaluate the Student using the rating scale below and check the appropriate number to indicate the degree of competency. The numerical ratings of 4,3,2 and 1 are not intended to represent the traditional school grading system of A,B,C and D. Ratings should reflect JOB READINESS for each of the tasks rather than the grade given in the class.

Rating Scale: 4 - Competent, needs no supervision
3 - Moderate competence, needs minimal supervision
2 - Limited competence, needs regular supervision
1 - Not competent, needs constant supervision

Plant Science

1. CLASSIFY PLANTS ACCORDING TO LIFE CYCLE, STRUCTURE AND USE. 4 3 2 1
   a. Identify plant parts and their functions.
   b. Classify plants as annuals, biennials or perennials.
   c. Describe the steps in the processes of photosynthesis and respiration.
   d. Identify major Arizona crops and indicate how they are utilized.
   e. Distinguish between sexual and asexual reproduction.

2. PROPERLY PLANT A CROP ON A PREPARED SEEDBED. 4 3 2 1
   a. Prepare a seedbed for proper germination and growth.
   b. Select seed for a specific situation.
   c. Plant seed at proper date, rate and depth.
   d. Describe types and kinds of fertilizers and interpret fertilizer analysis.

3. RECOGNIZE WATER REQUIREMENTS AND IDENTIFY METHODS OF IRRIGATION. 4 3 2 1
   a. Describe the methods of irrigation.
   b. Recognize symptoms of water stress.
   c. Explain the importance of timing and frequency of irrigation, and rate of application of irrigation water.
   d.

4. DESCRIBE METHODS OF CULTIVATION. 4 3 2 1
   a. Describe chiseling, disking, harrowing and hoeing.
   b. Explain the importance of depth and cultivation.

5. HARVEST A CROP FOR PEAK QUALITY. 4 3 2 1
   a. Describe methods of harvesting crops.
   b. Describe the factors involved in determining the time to harvest a crop.

6. DESCRIBE RECOMMENDED CONTROL MEASURES FOR IMPORTANT ECONOMIC INSECTS. 4 3 2 1
   a. Classify common Arizona insects according to the way they feed and types of metamorphosis.
   b. Classify common Arizona insects as either harmful or beneficial.
   c. Describe methods of applying cultural, biological and chemical controls to common Arizona insects.
   d.

7. DESCRIBE APPROVED WEED CONTROL MEASURES. 4 3 2 1
   a. Identify common Arizona weeds.
   b. Classify common Arizona weeds according to their growth habits.
   c. Desribe cultural and chemical controls of common Arizona weeds. 4 3 2 1
   d.

8. RECOGNIZE MAJOR PLANT DISEASES OF ARIZONA, THEIR CAUSES AND CONTROLS. 4 3 2 1
   a. Classify common Arizona infectious diseases by symptoms and causal agents.
   b. Recognize major noninfectious diseases and apply corrective measures.
   c.

Animal Science

1. SELECT LIVESTOCK POSSESSING DESIRABLE TRAITS. 4 3 2 1
   a. Distinguish between class, type and breed of livestock.
   b. Identify the parts of beef, swine, sheep and dairy animals.
   c. Identify major breeds of dairy, beef, sheep and swine.
   d. Use selection tools, such as pedigree and production records, in the selection of livestock.
   e. Identify wholesale cuts of the various market classes of livestock.
   f. Present in oral or written form, a set of reasons for livestock selection.
   g.

2. DETERMINE AND MAINTAIN THE GENERAL HEALTH OF LIVESTOCK. 4 3 2 1
   a. Identify unhealthy animals by using both visual and nonvisual indicators of animal health.
   b. Describe causes of common infectious and noninfectious diseases.
   c. Describe methods by which immunity to disease is provided to livestock.
   d. Describe quarantine measures used in disease prevention for livestock.
   e. Handle and restrain animals using mechanical devices.
   f. Describe methods of giving injections.
   g.

3. USE APPROVED PRACTICES IN LIVESTOCK SANITATION TO CONTROL DISEASES AND PARASITES. 4 3 2 1
   a. Identify approved practices in livestock sanitation.
   b. Develop a sanitation program.
   c.

4. DETERMINE NUTRITIONAL NEEDS AND FEED REQUIREMENTS FOR MAJOR CLASSES OF LIVESTOCK. 4 3 2 1
   a. Distinguish between ruminants and nonruminants, and select feedstuffs appropriate to each group.
   b. Describe the functions of each of the six general classes of nutrients and their common sources.
   c. Compare the energy, nutrients and bulk supplied by roughages and concentrates, as well as sources of both. 4 3 2 1
   d. Balance a ration and determine its cost.
   e.

5. USE APPROVED PRACTICES IN FEEDING LIVESTOCK. 4 3 2 1
   a. Develop a feeding schedule.
   b.

6. CARE FOR THE NEWBORN ANIMAL FROM PARTURITION UNTIL WEANING. 4 3 2 1
   a. Administer appropriate injections.
   b. Provide proper facilities as needed.
   c. Insure proper nutrition.
   d. Treat navel.

7. CARE FOR THE YOUNG ANIMAL FROM WEANING TO BREEDING OR MARKET AGE. 4 3 2 1
   a. Balance an appropriate ration.
   b. Flush ewes and sows.
   c. Administer appropriate injections.
   d.

8. CARE FOR THE FEMALE ANIMAL DURING BREEDING, GESTATION, PARTURITION AND LACTATION. 4 3 2 1
   a. Recognize signs of pregnancy and parturition.
   b. Assist in parturition.
   c. Balance an appropriate ration.
   d.

9. CARE FOR THE MALE ANIMAL DURING BOTH THE BREEDING AND RESTING PERIODS. 4 3 2 1
   a. Balance an appropriate ration.
   b. Identify approved management practices.
   c.

10. DEMONSTRATE APPROVED PRACTICES IN LIVESTOCK MANAGEMENT. 4 3 2 1
    a. Marking
    b. Dehorning
    c. Castrating
    d. Docking
    e. Clipping
    f. Trimming
    g. Innoculating
    h. Restraining
    i. Training
    j. Showing
    k.

Agricultural Mechanics

1. DEVELOP A PROJECT PLAN USING AGRICULTURAL MECHANICS PLANNING SKILLS. 4 3 2 1
   a. Interpret a working drawing.
   b. Make accurate measurements.
   c. Determine lengths to scale.
   d. Make an orthographic drawing.

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2. SAFELY CONSTRUCT AND FINISH A SKILL PROJECT USING BASIC AGRICULTURAL WOODWORKING SKILLS.

4	3	2	1

a. Apply proper techniques in the use of hand and power woodworking tools.
b. Apply finish to woodworking projects.
c. Apply wood fasteners and nails.
d. Construct a project with wood: _____

3. SAFELY CONSTRUCT AND FINISH A PROJECT USING COLD METAL WORKING SKILLS.

4	3	2	1

a. Maintain cold metal tools.
b. Cut internal and external threads.
c. Use hand and power tools to cut and pierce metal.
d. Construct a cold metal project: _____

4. SAFELY CONSTRUCT AND FINISH A SKILL PROJECT USING PLUMBING SKILLS.

4	3	2	1

a. Join steel tubing and pipe using approved practices.
b. Join copper tubing and pipe using approved practices.
c. Join plastic tubing and pipe using approved practices.
d. Construct a pipe and tubing project: _____

5. SAFELY ADJUST AND OPERATE GAS WELDING EQUIPMENT TO CONSTRUCT A PROJECT.

4	3	2	1

a. Set up, test and shut off equipment.
b. Run a bead with and without filler rod.
c. Make a corner weld without filler rod.
d. Join steel plates using butt, lap and fillet welds in the horizontal position.
e. Construct an oxy-acetylene welding project: _____

6. SAFELY ADJUST AND OPERATE A GAS CUTTING TORCH.

4	3	2	1

a. Make a straight cut using the cutting torch.
b. Pierce a hole using the cutting torch.
c. Make a 45 degree bevel cut using the cutting torch.

7. SAFELY ADJUST AND OPERATE THE AC AND DC ARC WELDER TO CONSTRUCT A PROJECT.

4	3	2	1

a. Strike an arc and run a bead in the flat position.
b. Join steel plates using butt, lap and fillet welds in the flat position.
c. Construct an arc welding project: _____

8. PROPERLY HITCH AGRICULTURAL MACHINERY TO FARM TRACTOR PTO, THREE-POINT HITCH AND DRAWBAR, AND CONNECT COMPONENTS FOR HYDRAULIC OPERATION.

4	3	2	1

a. Attach remote cylinder.
b. Attach two and three joint PTO systems to 540 and 1,000 RPM equipment.
c. Connect three-point hitch to field machinery and make adjustments for category of hitch.
d. Attach shields to belts, chains and PTO.
e. Service belts and chains for alignment and tension.
f. Follow a lubrication schedule.
g. Maintain hydraulic systems.

9. OPERATE A TRACTOR SAFELY ON THE JOB AND HIGHWAY.

4	3	2	1

a. Drive a tractor forward and backward through an obstacle course.
b. Perform preoperational checks on farm tractors.
c. Operate tractors with implements attached.

Careers

1. EVALUATE PERSONAL INTERESTS, KNOWLEDGE AND ABILITIES IN ORDER TO EXPLORE A CAREER BASED UPON JOBS AVAILABLE AND ENTRY LEVEL SKILLS.

4	3	2	1

a. Identify a variety of agricultural careers.
b. Identify a career interest in agriculture.
c. Analyze the skills, abilities and education required to gain entry into the career selected.
d. Develop a plan of action for accomplishing his or her occupational objective.

2. COMPLETE A RESUME AND APPLICATION, AND INTERVIEW FOR SPECIFIC AGRICULTURAL OCCUPATIONS.

4	3	2	1

a. Apply and interview for a job.
b.

Soils

1. EXPLAIN THE FORMATION AND FUNCTION OF A SOIL AND IDENTIFY ITS CAPABILITY CLASSIFICATION.

4	3	2	1

a. Describe factors that affect soil formation.
b. Label horizon of a soil profile.
c. Identify the soil texture of each horizon.
d. Describe the characteristics of the land capability classes.

2. SAMPLE SOILS AND INTERPRET SOIL TESTS TO DETERMINE THE CHEMICAL AND PHYSICAL PROPERTIES.

4	3	2	1

a. Sample soils.
b. Explain how soil testing aids in determining the fertilization and cultural practices for a particular soil.

3. RECOGNIZE SOIL EROSION PROBLEMS AND DETERMINE CONTROL MEASURES.

4	3	2	1

a. Describe types of erosion.
b. Describe management practices that aid in erosion control.

Supervised Occupational Experience Program

1. PLAN AN OCCUPATIONAL EXPERIENCE PROGRAM RELATED TO HIS/HER CAREER CHOICE.

4	3	2	1

a. Describe the relationship between SOEP and the total program of vocational agriculture.
b. Select ownership and/or placement programs for an SOEP.
c. Select supplementary skills for inclusion in the SOEP.
d. Develop a long-range SOEP plan.

2. CONDUCT AN OCCUPATIONAL EXPERIENCE PROGRAM.

4	3	2	1

a. Keep records on SOEP.
b.

3. EVALUATE AN OCCUPATIONAL EXPERIENCE PROGRAM.

4	3	2	1

a. Establish criteria for evaluating SOEP.
b.

Farm-Firm Records

1. DEVELOP AND ANALYZE A BUDGET.

4	3	2	1

a. Identify estimated receipts and expenses.
b.

2. DEVELOP AND ANALYZE A BUSINESS AGREEMENT.

4	3	2	1

a.

3. KEEP PRODUCTION AND WORK EXPERIENCE RECORDS.

4	3	2	1

a. Prepare a beginning inventory.
b. Record receipt and expense entries in an account book.
c. Calculate depreciation.
d. Prepare a closing inventory.
e. Close an account book.
f. Summarize records for a business venture.

4. ANALYZE BUSINESS RECORDS.

4	3	2	1

a. Determine gross income, net cash income and net farm income.
b.

5. PREPARE AND ANALYZE FINANCIAL STATEMENT.

4	3	2	1

a. Distinguish between assets and liabilities.
b. Classify liabilities as long term, deferred and current.
c. Classify assets as fixed, working and current.
d. Apply net capital ratio, working ratio, and current ratio to determine the soundness of a business.

6. DEVELOP A SUMMARY AND ANALYSIS OF CROP OR LIVESTOCK ENTERPRISES.

4	3	2	1

a.

Leadership

1. PLAN, CONDUCT AND EVALUATE GROUP ACTIVITIES.

4	3	2	1

a. Serve as a group leader.
b. Use parliamentry procedure.
c. Make decisions exhibiting responsibility and judgement.

2. VERBALLY COMMUNICATE IN SMALL OR LARGE GROUP SETTINGS.

4	3	2	1

a. Recite the FFA Creed.
b. Prepare and present a speech of five minutes.
c. Constructively discuss items of business in committee or chapter meetings.

C O R E C U R R I C U L U M

FOR A SUPERVISED OCCUPATIONAL EXPERIENCE PROGRAM

DIRECTIONS: Evaluate the Student using the rating scale below and check the appropriate number to indicate the degree of competency for the Student's SOE program. The numerical rating of 4,3,2,1, are not intended to represent the traditional school grading system of A,B,C,D. Ratings should reflect job readiness for each task rather than grade given in the class.

RATING SCALE:
- 4- Competent, needs no supervision
- 3- Moderate competence, needs minimal supervision
- 2- Limited competence, needs regular supervision
- 1- Not competent, needs constant supervision

==========

RECOGNIZING SUPERVISED OCCUPATIONAL EXPERIENCE AS A PART OF VOCATIONAL AGRICULTURE

1. What is SOE?	4 3 2 1
2. What are my agriculture interests?	4 3 2 1
3. What are the opportunities for SOE programs?	4 3 2 1
4. Who should assist with my SOE program?	4 3 2 1
5. How is SOE related to Classroom-Laboratory-FFA	4 3 2 1

STARTING AN OWNERSHIP OCCUPATIONAL PROGRAM

1. What tasks do people in the community perform?	4 3 2 1
2. How are goals set for ownership SOE?	4 3 2 1
3. How are ownership SOE programs started?	4 3 2 1
4. How is an ownership program planned?	4 3 2 1
5. Why are ownership SOE records important?	4 3 2 1
6. How are ownership records started?	4 3 2 1

STARTING A PLACEMENT SOE PROGRAM

1. What are characteristics of a good placement program?	4 3 2 1
2. How is a SOE placement program planned?	4 3 2 1
3. How is a Placement station obtained?	4 3 2 1
4. How is a job interview made?	4 3 2 1
5. What is required to be a successful employee?	4 3 2 1
6. What special consideration is needed with Coop Placement?	4 3 2 1

STARTING A DIRECTED LABORATORY SOE PROGRAM

1. Definition of Directed Laboratory SOE	4	3	2	1
2. Complete a sample agreement form	4	3	2	1
3. Identify occupational goals in agriculture	4	3	2	1
4. Identify and observe good work habits	4	3	2	1
5. Identify and fill out performance sheets	4	3	2	1
6. Fill out improvement record sheets	4	3	2	1
7. Discuss and be able to fill out group project record, inventory and financial sheets	4	3	2	1
8. Fill out leadership forms	4	3	2	1

ANALYZING THE SOE PROGRAM

1. How to analyze my livestock enterprise?	4	3	2	1
2. Analyze the crop enterprise	4	3	2	1
3. Analyze the placement program	4	3	2	1
4. How do I use the financial statement?	4	3	2	1
5. How can I develop a financial statement?	4	3	2	1
6. How can I use my enterprise analysis to replan my continuing SOE program?	4	3	2	1

ENTERING AN AGRICULTURE OCCUPATION

1. Why is the choice of a career so important?	4	3	2	1
2. How can I accurately identify my own aptitude, abilities, and interests?	4	3	2	1
3. What are the opportunities in Agriculture?	4	3	2	1
4. How can we determine occupations needing further training?	4	3	2	1
5. How to apply for a job	4	3	2	1
6. How may the student become a valued employee, a successful entrepreneur or a respected professional?	4	3	2	1

CORE CURRICULUM

AGRIBUSINESS

Directions: Evaluate the Student using the rating scale below and check the appropriate number to indicate the degree of competency. The number ratings of 4, 3, 2, and 1 are not intended to represent the traditional grading system of A, B, C, and D. Ratings should reflect Job Readiness for each of the tasks rather than the grade in class.

Rating Scale: 4 - Competent, needs no supervision
3 - Moderate competence, needs minimal service
2 - Limited competence, needs regular supervision
1 - Not competent, needs constant supervision

I.	STRUCTURE OF AGRIBUSINESS	
1.	Definition	4 3 2 1
2.	Kinds of Agribusiness	4 3 2 1
3.	Organizational structure of different types of business	4 3 2 1
II.	JOBS IN AGRIBUSINESS	
1.	Technical positions	4 3 2 1
2.	College graduates	4 3 2 1
3.	Job competencies needed by all students	4 3 2 1
4.	Human factors in business	4 3 2 1
5.	Interviewing	4 3 2 1
6.	Developing a job resume	4 3 2 1
7.	Developing a cover letter	4 3 2 1
8.	Work habits and attitudes	4 3 2 1
III.	ORGANIZATIONAL STRUCTURE OF BUSINESS	
1.	The seven variables of a company	4 3 2 1
2.	Excellent company attributes	4 3 2 1
3.	Key company management factors	4 3 2 1
4.	Key negative management factors	4 3 2 1
5.	Individual worker traits	4 3 2 1

IV. SELLING IN AGRICULTURE

1.	Quality factors in selling a product	4 3 2 1
2.	Types of selling	4 3 2 1
3.	Four kinds of people	4 3 2 1
4.	Stages in making a sale	4 3 2 1
5.	Communication skills in selling	4 3 2 1

V. WHAT YOU NEED TO KNOW ABOUT MANAGING A BUSINESS

1.	Quality and attitude of workers	4 3 2 1
2.	Reading the business of a business	4 3 2 1
3.	Other management factors	4 3 2 1
4.	Job analysis form	
5.	Planning for growth & profit	
	A. Planning for <u>now</u> and the future	4 3 2 1
	B. We are a service processing society	4 3 2 1
	C. Identify market	4 3 2 1
	D. Know profit and loss	4 3 2 1

VI. AGRIBUSINESS MONEY MANAGEMENT

1.	Securing needed finances	4 3 2 1
2.	Developing a money plan	4 3 2 1
3.	Profit and loss statement	4 3 2 1
4.	Estimating costs	4 3 2 1
5.	Inventory	4 3 2 1
6.	Receipt statement	4 3 2 1
7.	Expense statement	4 3 2 1

STEP 4

Course Sequence

&

Outline

CURRICULUM

Philosophy--The curriculum in Vocational Agriculture is composed of that combination of academic courses and Vocational Agriculture which is judged most suitable to prepare high school age students for specific agricultural employment. Recognition is given to the need for some students to enroll in academic courses required for admission to college. To the extent possible, the schedule of studies for each student is arranged to best meet student needs and interests.

Course Offerings--The instructional program details are determined locally by the teacher of Vocational Agriculture in consultation with the local school administrator and the advisory committee. The teacher should consider the needs of the students, the local agricultural enterprises, the opportunities for employment and the opportunity for students to engage in meaningful supervised occupational experience programs.

Courses of full one-year duration are recommended, but the flexibility of courses of one-semester or one-trimester duration should be considered as the sequence of courses to be offered is determined.

A minimum of two years is recommended for each course area. Units of instruction should include; Production, Agribusiness, Appropriate Agriculture Mechanics, Supervised Occupational Experience, Careers and Student Leadership.

Courses Sequence--The courses may be designed in a variety of ways to meet the needs of school, program and students.

a. Agriculture I, II, III, IV Sequencing
b. 360 Hour Alternating Year Sequence
c. Special Callout for Agriculture Mechanics
d. Beginning, Specialized Sequence

Vocational Agriculture Program--should contain the following competencies as part of the total course offering: production, related agriculture mechanics, appropriate agriculture business concepts, a supervised occupational experience and student leadership through the Future Farmers of America (Note Step 4, page 21).

A SEQUENTIAL VOCATIONAL AGRICULTURE PROGRAM
SHOULD INCLUDE APPROPRIATE::::

TAXONOMY	PRODUCTION	AGRIC. MECHANICS	AGRIBUSINESS	SOE	FFA(LEADERSHIP)

23

24

A SEQUENTIAL VOCATIONAL AGRICULTURE PROGRAM
SHOULD INCLUDE APPROPRIATE::::

**SAMPLE ONLY

TAXONOMY	PRODUCTION	AGRIC. MECHANICS	AGRIBUSINESS	SOE	FFA(LEADERSHIP)
PRODUCTION AGRICULTURE	LIVESTOCK INDUSTRY HEALTH, DISEASES FEEDING, NUTRITION REPRODUCTION, BREEDING EVALUATION, SELECTION SKILLS (CASTRATION) PASTURE FERTILIZATION CROPS	WELDING METALS CONSTRUCTION ENGINES MACHINERY MAINT.	AGRIBUSINESS PRINCIPLES FINANCIAL ANALYSIS SELLING ADVERTISING COMPUTERS PROCESSING	CAREERS STARTING SOE WORK HABITS RESUMES APPLICATIONS PROFICIENCY AWARDS RECORD BOOKS STATE FARMER DEGREE ANALYZING RECORDS	HISTORY OF FFA PROGRAM OF WORK MANAGEMENT PRACTICES PARL. PRO. COMMITTEE WORK COMMUNICATIONS HUMAN RELATIONS COMMUNITY STRUCTURE AWARDS CONTESTS DEGREES STATE, NATIONAL COMMUNITY SERVICE
AGRICULTURE MECHANICS (AS A SEPARATE AND SEQUENCED PROGRAM)		GAS WELDING ARC WELDING TOOL SAFETY TOOL MAINTENANCE CONCRETE AND MASONRY LEVELING AND LAND MEASUREMENT PLUMBING HOT AND COLD METAL TRACTOR POWER SMALL ENGINES MACHINERY CARE ELECTRIC MOTORS ELECTRIC CONTROLS AND SENSING DEVICES ELECTRIC WIRING	AGRIBUSINESS PRINCIPLES BLUEPRINTING BIDDING COSTING RECORDS PROFIT AND LOSS COMPUTERS	CAREERS STARTING AND TYPES OF SOE FOR AG. MECH RESUMES WORK HABITS APPLICATIONS PROFICIENCY AWARDS RECORD BOOKS	HISTORY OF FFA PROGRAM OF WORK MANAGEMENT PRACTICES COMMUNICATIONS HUMAN RELATIONS FOREMAN CLEANUP COMMITTEE STRUCTURE AWARDS CONTESTS DEGREES STATE AND NATIONAL COMMUNITY SERVICE

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COURSE OUTLINE FOR VOCATIONAL
AGRICULTURE

COURSE:_____ TEACHER:_____

CODE**	NO. DAYS	UNIT	NOTES

** 1. CLASSROOM 2. SHOP/LAB
3. S.O.E. 4.STUDENT LEADERSHIP

SAMPLE ONLY

COURSE OUTLINE FOR VOCATIONAL AGRICULTURE

COURSE: General Agriculture, Even Year or First Year

TEACHER: _____

CODE**	NO. DAYS	UNIT	NOTES
1	2	Introduction to Program and School Requirements	
4	1	Introduction to FFA	
4	3	Program of Work	
		Assemble Total Program of Work.	
		Leadership Committee	
		Scholarship Committee	
		SOE Committee	
		State and National	
		Conduct of Meetings	
4	3	State Fair	
		Demonstrations	
		Exhibiting at Fair	
		Judging Contests	
3	3	Supervised Occupational Experience	
		The SOE Program	
		Types of SOE	
		SOE Visit Requirements	
		Career Education	

** 1. CLASSROOM 2. SHOP/LAB 3. S.O.E. 4. STUDENT LEADERSHI

COURSE OUTLINE FOR VOCATIONAL AGRICULTURE

COURSE: General Agriculture, Even Year or First Year TEACHER: _____

CODE**	NO. DAYS	UNIT	NOTES
1	30	Livestock (Beef)	
		Breeds of Beef	
		Feeding	
		Selecting/Breeding	
		Marketing Beef	
		Grades/Classes	
1	20	Sheep	
		Breeds	
		Feeding	
		Breeding	
		Management	
1,3,4	10	SW Washington Fair	
		Selecting Market Animals	
		Feeding	
		Selection	
		Record Books	
	5	Pastures	
		Fertilization	
		Seeding	
		Care	
		Seedbed Preparation	

** 1. CLASSROOM 2. SHOP/LAB 3. S.O.E. 4. STUDENT LEADERS

SAMPLE ONLY

COURSE OUTLINE FOR VOCATIONAL
AGRICULTURE

COURSE: General Agriculture - Even Year TEACHER: _____
OR
First Year

CODE**	NO. DAYS	UNIT	NOTES
	5	Gardens	
		Tilling	
		Tomato Sets	
		Fertilization	
		Water	
		Planting	
		Plan	
3	15	FFA	
		Communication	
		Public Speaking	
		Creed	
		Parl. Pro.	
		Update Program of Work	
1,3,4	20	Sell a Product	
		Skills in Sales	
		Displays	
		Business Records	
		Advertising	
		Marketing	
		Credits and Loans	
		Business Records	
	26		

** 1. CLASSROOM 2. SHOP/LAB
3. S.O.E. 4. STUDENT LEADERSHIP

SAMPLE ONL

COURSE OUTLINE FOR VOCATIONAL AGRICULTURE

COURSE: General Agriculture - Even Year or First Year TEACHER: _____

CODE**	NO. DAYS	UNIT	NOTES
	50	Small Engines	
		Theory	
		Trouble Shooting	
		Care	
		Maintenance	
		Operation	
	5	Electric Motors	
		Servicing	
		Lubrication	
		Selection	

** 1. CLASSROOM 2. SHOP/LAB
3. S.O.E. 4. STUDENT LEADERSH

SAMPLE ONLY

COURSE OUTLINE FOR VOCATIONAL AGRICULTURE

COURSE: General Agriculture, Odd Year or Second Year TEACHER: _____

CODE**	NO. DAYS	UNIT	NOTES
1	2	Introduction to Program and School Requirements	
4	1	Introduction to FFA	
4	3	Program of Work	
		Assemble Program of Work	
		Leadership Committee	
		Scholarship Committee	
		SOE Committee	
		State and National Committee	
		Conduct of Meetings	
4	3	State Fair	
		Demonstrations	
		Exhibiting at Fair	
		Judging Contests	
3	3	Supervised Occupational	
		Experience	
		Analyzing SOE	
		Expanding SOE	
		Career Education	
		Proficiency Awards	

** 1. CLASSROOM 2. SHOP/LAB
3. S.O.E. 4. STUDENT LEADERSHIP

SAMPLE ONLY

COURSE OUTLINE FOR VOCATIONAL AGRICULTURE

COURSE: General Agriculture, Odd Year or Second Year TEACHER: _____

CODE**	NO. DAYS	UNIT	NOTES
1	30	Swine	
		Breeds	
		Feeding	
		Selecting/Breeding	
		Marketing	
		Grades/Classes	
1	15	Poultry	
		Breeds	
		Fryers	
		Laying	
		Managements	
		Judging	
1	15	Dairy	
		Breeds	
		Judging	
		Feeding	
		Management	
1,2,3,4	10	SW Washington Fair	
		Selecting Market Animals	
		Feeding	
		Selection	
		Record Books	

** 1. CLASSROOM 2. SHOP/LAB 3. S.O.E. 4. STUDENT LEADERSH

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SAMPLE ONLY

COURSE OUTLINE FOR VOCATIONAL AGRICULTURE

COURSE: General Agriculture, Odd Year or Second Year TEACHER: _____

CODE**	NO. DAYS	UNIT	NOTES
1	5	Hay	
		Fertilization	
		Cutting-Baling	
		Job Opportunities in Summer.	
2	5	Orchard Care	
		Pruning Old Trees	
		Establishing New Orchards	
4	15	FFA	
		Parliamentary Procedure	
		Public Speaking	
		Extemp	
		Creed	
		Awards	
		Update POW	
1	30	Agribusiness	
		Agribusiness Management	
		Business Records	
		Types of Business	
		Marketing	
		Credits and Loans	

** 1. CLASSROOM 2. SHOP/LAB
3. S.O.E. 4. STUDENT LEADERSHI

SAMPLE ONL

COURSE OUTLINE FOR VOCATIONAL AGRICULTURE

COURSE: General Agriculture, Odd Year or Second Year TEACHER: _____

CODE**	NO. DAYS	UNIT	NOTES
		Agribusiness continued	
		Getting and Keeping a Job.	
		Resume	
		Applications	
		Interviews	
		Personal Evaluations and Grooming	
		Work Expectations	
2	48	Agriculture Construction	
		Carpentry	
		Concrete and Masonry	
		Wiring	
		Tool Safety	
		Tool Maintenance	
		Plumbing	

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** 1. CLASSROOM 2. SHOP/LAB
3. S.O.E. 4.STUDENT LEADERSHI

STEP 5

Developing Student Learning Objectives

DEVELOPING STUDENT LEARNING OBJECTIVES

The purpose of this section is to give the teacher background information on how to develop student learning objectives as it relates to program needs and to school goals. We have four areas developed:

* I. Level of Objectives
* II. Performance Objective Domains
III. School Goals
IV. Student Learning Objectives Worksheet

I. LEVEL OF OBJECTIVES

General Program Objectives	Upon completion of the Horticulture Program, the student will be able to perform entry level skills in landscaping and nursery production.
Course Objective	Upon completion of the Floriculture Course, the student will be able to create four types of flower arrangements. Evaluation will be done by a teacher using flower arrangement evaluation forms.
Unit Objective	Assigned any of the "routine" landscape maintenance tasks, you will be able to complete job assignment. The instructor will check your performance against job task sheet.
Lesson Objective	Given the necessary equipment and supplies for plant propagation, you will propagate 25 marigolds according to proper procedure during class period.

II. PERFORMANCE OBJECTIVE DOMAINS

1. Cognitive Domain: The cognitive domain includes those performances which require knowledge of specific information; e.g., the principles, concepts, and generalizations necessary for problem solving. Examples of cognitive performances are:
   - define the terms
   - critique the presentations
   - develop your own resume
   - identify given objectives as being primarily cognitive, psychomotor or affective

   Conditions (circumstances under which such performances would be accomplished) could be any situation in which the student is given information to process:
   - given a list of terms
   - after viewing videotaped lesson presentations
   - given sample resumes
   - given a list of student performance objectives

   Criteria within the cognitive domain will usually call for accuracy of the information to a certain standard, or will make reference to other material. These could include:
   - with 80% correct responses
   - according to criteria contained in the text
   - compared to a model

2. Psychomotor Domain: The psychomotor domain measures the skill performance of the student and, therefore, the performance required will involve the manipulation of objectives, tools, supplies, or equipment. Performances which are primarily psychomotor include:
   - typing a letter
   - constructing a wall
   - wiring a plug
   - developing an x-ray
   - plowing a field

* Taken from AAVIM, "Develop Student Learning Objectives"

Since students will be manipulating something such as tools, equipment, supplies, or machinery, the conditions for the psychomotor objective will need to describe the necessary materials or environment, such as--

- in a simulated office situation
- given necessary blueprints and construction materials drawn from the storeroom
- for any non-functioning radio brought into the shop
- following film exposure
- for any field with no more than 5° slope

Similarly, the criterion for the achievement of a psychomotor objective will relate to the actual performance or the finished product and to the necessary level of performance that must be achieved. Appropriate criteria for objectives in the psychomotor domain might involve accuracy within a certain tolerance limit, speed, degree of excellence, or reference to other material outlining the criteria for judgment. Examples of such criteria might include--

- at 50 words per minute with no more than two errors
- so that the wall meets criteria specified within the blueprint and will pass inspection by the instructor using the "wall construction criteria checklist"
- according to manufacturer's specifications
- to a .001 inch tolerance as measured by a micrometer
- according to the procedure outlined
- so that the shine will reflect a piece of paper

3. Affective Domain

In the affective domain, the performance required involves the demonstration of feelings, attitudes, or sensitivities toward other people, ideas, or things. For example, the student might be asked to--

- demonstrate an increased awareness
- show concern for safety within the laboratory
- display a concerned attitude toward frightened patients
- take more responsibility for his/her learning

The conditions under which these feelings or attitudes will be demonstrated are situation in which students can demonstrate beginning understandings of the necessary attitudes required in the occupation. Examples of condition statements might include--

- upon completion of the unit of personnel relations
- at all times within the laboratory
- in the actual work situation

In the affective domain, since feelings are not directly measurable, the criterion for achievement of an objective calls for behavior which demonstrates that a feeling or attitude is present. Therefore, both the criterion and the performance statement will contain an action word or verb. Examples of such criteria are:

- stays with an apprehensive patient during examination or sees that someone else will be present
- reports a hazardous condition in the laboratory
- participates in class discussion voluntarily or "takes on" an individual project without being asked

SCHOOL, VOCATIONAL, AND PROGRAM GOAL COMPARISON SHEET

The purpose of this sheet is to give you a comparison between school, vocational and vocational agriculture goals for the purpose of relating goals to Student Learning Objectives.

SAMPLE SCHOOL GOALS	SAMPLE VOCATIONAL EDUCATION GOALS	SAMPLE VOCATIONAL AGRICULTURE GOALS
1. Provide opportunity for each student to develop the basic academic and practical skills required to function successfully in society.	1. Students will have opportunity to participate in work skill training before leaving high school.	1. To develop agricultural competencies needed by individuals who live on a farm or who plan to engage in production agriculture.
2. The school will provide the opportunity for each student to develop a positive self-image.	2. Leadership development is an integral part of the vocational education program.	2. To develop competencies in the agricultural sciences which are needed by individuals who plan to engage in agricultural-related occupations other than production agriculture.
3. The school will provide the opportunity for students to identify their own personal values and those of society while striving for a balance between the security of understood limits and the adventure of choice.	3. A student's choice of a vocational program should be based on the student's interest and ability to benefit from the training.	3. To develop knowledge, skills and abilities in the area of agriculture mechanics.
4. The school will assist each student to develop the ability to perform successfully in physical and social situations.	4. Instructional facilities and equipment in vocational education programs should be comparable to that which is used in the job for which the student is being trained.	4. To develop a good foundation for and a desire to continue education beyond the high school.
5. The school will provide career education for each student, enabling the person to develop according to their individual needs.	5. Vocational guidance and counseling services shall be available to all students to assist in the vocational program selection process.	5. To assist with the vocational guidance of high school youths.
6. The school will assist each student to develop an awareness and understanding of their community.	6. The vocational education program should develop an awareness and understanding of the community.	6. To develop those abilities in human relations and leadership training skills which are essential in agricultural occupations.
7. The school will provide facilities to the community for continuation of educational, social, and recreational activities.	7. The vocational education program will provide facilities for adult education.	7. To complement the broad educational objectives of the secondary school by illustrating practical applications of academic subjects such as science, mathematics and economics upon agriculture for the student.

IV. STUDENT LEARNING OBJECTIVES

Course Title:_____ Page:_____of_____

Class Periods	Learning Units to be Covered	School Goal	Cost	Expected Student Outcome (SLO's)	Learning Activities	Evaluation
No. Days	Major Topics Include	School Goal #	Supplies, Etc.	Upon completion of this unit, students will be able to:	In this class students will:	Method or Process
36						
	41					42

STEP 6

Develop Vocational Agriculture Budget

19___ - 19___ BUILDING BUDGET

Program_____ Total Budget $_____

Description of Supplies and/or Activity	Supplies and Materials (5)	Instructional Materials (6)	Contracted Services (7)	Travel (8)	Capital Outlay (9)

STEP 7

Develop Lesson

Plan

LESSON PLAN FORM

COURSE:_____ UNIT:_____ LESSON:_____

OBJECTIVES: 1.
2.
3.
4.

REFERENCES: 1.
2.
3.
4.

MATERIALS NEEDED:
1.
2.
3.
4.

INTRODUCTION: 1.
2.
3.

LESSON:

MODELING: 1.

2.

3.

4.

GUIDED PRACTICE:

1.

2.

3.

CONCLUSION:

ASSIGNMENTS:

EVALUATION:

STEP 8

Suggested Units of Instruction

VOCATIONAL AGRICULTURE
SUGGESTED
UNITS OF INSTRUCTION

1. ANIMAL SCIENCE
2. CROPS AND SOILS
3. AGRIBUSINESS
4. FARM MANAGEMENT
5. AGRICULTURE MECHANICS
6. FORESTRY
7. LOGGING & FORESTRY PRACTICES
8. HORTICULTURE
9. TREE FRUITS
10. ARC WELDING
11. OXY-ACETYLENE WELDING
12. SMALL GAS ENGINES
13. STUDENT LEADERSHIP
14. SUPERVISED OCCUPATIONAL EXPERIENCE PROGRAMS

VOCATIONAL AGRICULTURE
SUGGESTED
UNITS OF INSTRUCTION

CURRICULUM AREA: ANIMAL SCIENCE

LIVESTOCK INDUSTRY

BREEDS OF LIVESTOCK

LIVESTOCK FEEDING

ANIMAL NUTRIENTS

FEEDS

ANIMAL DIGESTION

ANIMAL HEALTH

DISEASES

PARASITES

REPRODUCTION

ARTIFICIAL INSEMINATION

FERTILITY

GRADES/CLASSES LIVESTOCK

MARKETING LIVESTOCK

PRICE TRENDS

SELECTING/BREEDING LIVESTOCK

OTHER??

VOCATIONAL AGRICULTURE
SUGGESTED
UNITS OF INSTRUCTION

CURRICULUM AREA: CROPS AND SOILS

STUDY OF SOILS
AGRIC. CHEMICALS
PLANT SCIENCE
SOIL SCIENCE
PLANT GROWTH/REPRODUCTION
SEED SELECTION
LAND PREPARATION
CHEMICAL WEED CONTROL
PLANT INSECT CONTROL
MARKETING CROPS
FERTILIZERS
IMPROVING RANGELAND
PASTURES
CROPS JUDGING
LAND JUDGING
SOIL SAMPLING
SOIL SURVEYS
SOIL CONSERVATION SERVICE
OTHERS??

VOCATIONAL AGRICULTURE
SUGGESTED
UNITS OF INSTRUCTION

CURRICULUM AREA: AGRIBUSINESS

SKILLS NEEDED IN SALES
AGRIBUSINESS SALES PROCESS
PROMOTION IN AGRIBUSINESS
ADVERTISING
USING DISPLAYS
SELLING AG. PRODUCTS
AGRIBUSINESS MANAGEMENT
GETTING STARTED IN BUSINESS
MANAGEMENT AND OPERATIONS
BUSINESS RECORDS
DISTRIBUTION OF PRODUCTS
EQUIPMENT AND FACILITIES
PACKAGING AND TRANSPORTATION
TYPES OF BUSINESS
COOPERATIVES
MARKETING
FUTURES AND HEDGING
CREDITS AND LOANS
OTHER??

VOCATIONAL AGRICULTURE
SUGGESTED
UNITS OF INSTRUCTION

CURRICULUM AREA: FARM MANAGEMENT

FARM RECORDS
FARM INVENTORY
NET WORTH STATEMENT
FINANCING THE FARM BUSINESS
INSURANCE
TAX MANAGEMENT
MACHINERY AND EQUIPMENT MANAGEMENT
CUSTOM SERVICE VERSUS OWNERSHIP
ANALYSIS AND EVALUATION OF FARM RECORDS
OTHER??

VOCATIONAL AGRICULTURE
SUGGESTED
UNITS OF INSTRUCTION

CURRICULUM AREA: AG. MECHANICS

ORIENTATION
SAFETY
ARC WELDING
OXYACETYLENE WELDING
OXYACETYLENE CUTTING
METAL WORK
FORGE WORK
BILL OF MATERIAL
FARM SAFETY
DRAWING AND SKETCHING
USING THE FARM LEVEL
PAINTING
BUILDING FARM FENCES
CONCRETE
RAFTER FRAMING
FARM UTILITY BUILDINGS
SMALL ENGINES
SERVICING SMALL ENGINES
SERVICING TRACTORS/FARM MACHINERY
FUNDAMENTALS OF ELECTRICITY
IRRIGATION
ELECTRICAL SAFETY
ELECTRICAL WIRING PRACTICES
PLANNING THE WIRING LAYOUT
ELECTRICAL MOTORS
PROJECTS
POWER MECHANICS
ROPE WORK
PIPE WORK
OTHER??

VOCATIONAL AGRICULTURE
SUGGESTED
UNITS OF INSTRUCTION

CURRICULUM AREA: FORESTRY

INTRODUCTION
HISTORY
DENDROLOGY
REGENERATION
SOILS
SILVICS
SILVICULTURE
FOREST PROTECTION
MAPS/LEGAL DESCRIPTION
SURVEY
TIMBER CRUISING
LOGGING PRACTICES
SAFETY
CHAINSAW
MARKETING
FOREST ECONOMICS
WOOD TECHNOLOGY
CHRISTMAS TREES
NATURAL RESOURCES
OTHER??

VOCATIONAL AGRICULTURE
SUGGESTED
UNITS OF INSTRUCTION

CURRICULUM AREA: LOGGING & FORESTRY PRACTICES

ORIENTATION
HISTORY OF LOGGING
PRINCIPLES OF LOGGING
FOREST REGENERATION
CABLE
POWER SAWS
CHRISTMAS TREES
FOREST PROTECTION
FOREST STAND IMPROVEMENT
HIGH LEAD LOGGING
RUBBER TIRED SKIDDER
CRAWLER TRACTOR LOGGING
FELLING AND BUCKING
CHOKERSETTING
JOB TITLES
SEALING AND GRADING LOGS
LOADING LOGS
CLIMBING
SPLITTING WOOD
SAFETY
HAULING LOGS
LOG IDENTIFICATION
RIGGING BLOCKS
OTHER??

VOCATIONAL AGRICULTURE
SUGGESTED
UNITS OF INSTRUCTION

CURRICULUM AREA: HORTICULTURE

HORTICULTURE INDUSTRY
PLANT CLASSIFICATION
PLANT GROWTH
CLIMATE/ZONATION
SOILS/FERTILIZATION
GROWING STRUCTURES
PLANT DISORDERS
SAFETY
FLORICULTURE
LANDSCAPING
HORTICULTURE CROPS
PLANT PROPAGATION
JOB SKILLS
GREENHOUSE MANAGEMENT
CONSTRUCTION
PROPAGATION
OTHER??

VOCATIONAL AGRICULTURE
SUGGESTED
UNITS OF INSTRUCTION

CURRICULUM AREA: TREE FRUITS

HISTORY OF APPLE PRODUCTION
PROPAGATION OF APPLES
PRUNING
PLANTING
FROST CONTROL
PEST CONTROL
GROWTH REGULATORS
THINNING
IRRIGATION
HARVESTING
PACKING AND STORAGE
MARKETING
OTHER??

VOCATIONAL AGRICULTURE
SUGGESTED
UNITS OF INSTRUCTION

CURRICULUM AREA: ARC WELDING

SAFETY
MACHINE SETTING
RUNNING BEADS WITH E6011 ROD
FLAT FILLET WITH E6011 ROD
BUTT WELD WITH E6011 ROD
LAP WELD WITH E6011 ROD
OVERHEAD FILLET WITH E6011 ROD
VERTICAL FILLET WITH E6011 ROD
BEADS WITH E7024 ROD
FLAT FILLET WITH E 7024 ROD
BEADS WITH E7018 ROD
FLAT BUTT WELD WITH E7018 ROD
VERTICAL BUTT WELD WITH E7018 ROD
VERTICAL FILLET WITH E7018 ROD
OVERHEAD FILLET WITH E7018 ROD
FLAT WELD WITH E7014 ROD
VERTICAL DOWN WELD WITH E7014 ROD
PIPE WELD WITH E6013 ROD
PIPE WELD WITH E7021 ROD
STAINLESS STEEL WELDING WITH E398 ROD
CAST IRON WELDING WITH AIRCO 375 ROD
SHARPENING A DRILL BIT
STUDENTS WILL SPEND AT LEAST 40 HOURS
ON INDIVIDUAL PROJECTS
OTHER??

VOCATIONAL AGRICULTURE
SUGGESTED
UNITS OF INSTRUCTION

CURRICULUM AREA: AG. MECH.-OXYACETYLENE WELDING

SAFETY
EQUIPMENT SET-UP
LIGHTING AND ADJUSTMENT
EQUIPMENT SHUTDOWN
PUDDLE BEADS
BEADS WITH A ROD
FLAT BUTT WELD
FLAT LAP WELD
FILLET WELD
CORNER WELD
VERTICAL BEAD WELD
VERTICAL LAP WELD
VERTICAL FILLET WELD
OVERHEAD FILLET WELD
TAILPIPE AS IN POSITION
POWER TOOL FILLET USE
EXERCISE IN HORIZONTAL DISPLAY USE
BRAZING WITH BEADS
BRAZING BUTT WELD
BRAZING WITH LAP WELD
BRAZING FILLET WELD
BRAZING ROUND TO FLAT
ALUMINUM WELDING
SILVER BRAZING
HAND CUTTING
AUTOMATIC CUTTING
INDIVIDUAL PROJECT (TOTAL OF 40 HOURS)
INCLUDED WITH ARC WELDING
OTHER??

VOCATIONAL AGRICULTURE
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CURRICULUM AREA: SMALL ENGINES

TWO AND FOUR CYCLE THEORY ON INTERNAL COMBUSTION ENGINES

DISASSEMBLE

MEASUREMENT

TROUBLESHOOTING

- A. IDENTIFICATION
- B. REPAIR ENGINE
- C. VISUALLY IDENTIFY THE PROBLEM
- D. IGNITION PROBLEMS
- E. CARBURETION
- F. COMPRESSION

FUELS

LUBRICANTS

HOME PROJECTS

OTHER??

VOCATIONAL AGRICULTURE
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CURRICULUM AREA: STUDENT LEADERSHIP

COMMUNICATION-
PUBLIC SPEAKING, EXTEMPORANEOUS, CREED, PARLIAMENTARY PROCEDURE, SMALL GROUP COMMUNICATION

PROGRAM OF WORK

OFFICER RESPONSIBILITIES

LEADERSHIP MANAGEMENT

INDIVIDUAL FFA AWARDS-
PROFICIENCY, STATE FARMER, STATE OFFICER, CITIZENSHIP, COOPERATIVE ACTIVITIES, SCHOLARSHIP

CHAPTER FFA AWARDS-
SUPERIOR CHAPTER, BOAC, SAFETY, "IN CLUB", PRESIDENTS AWARD, DISTRICT BEST CHAPTER

GETTING AND KEEPING A JOB-
RESUME, APPLICATIONS, INTERVIEWS, PERSONAL EVALUATIONS, GROOMING, AND WORK EXPECTATIONS

OTHER??

VOCATIONAL AGRICULTURE
SUGGESTED
UNITS OF INSTRUCTION

CURRICULUM AREA: SUPERVISED OCCUPATIONAL EXPERIENCE

THE SUPERVISED OCCUPATIONAL EXPERIENCE
OWNERSHIP SOE
PLACEMENT SOE
GROUP PROJECT SOE
IMPROVEMENT SOE
ANALYZING SOE PROGRAM
EXPANDING SOE PROGRAM
ENTERING AN AGRICULTURE OCCUPATION
SOE VISIT REQUIREMENTS
SUMMARIZING THE SOE PROGRAM
OTHER??